DOCUMENT RESUME

ED 402 919 IR 018 214

TITLE	Study of School Uses of Television and Video. 1990-91 School Year. Summary Report.
INSTITUTION	Corporation for Public Broadcasting, Washington, D.C.
PUB DATE	[92]
NOTE	32p.
AVAILABLE FROM	USA Fulfillment, Inc., P.O. Box 1515, Church Hill, MD 21690 ($3).
PUB TYPE	Reports - Descriptive (141) -- Statistical Data (110)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Cable Television; Communications Satellites; *Educational Television; Elementary Secondary Education; Futures (of Society); *Instructional Materials; Interactive Television; *Mass Media Use; Programming (Broadcast); Questionnaires; Teacher Attitudes; Technological Advancement; *Television Viewing; Trend Analysis; Videodisks; Videotape Cassettes; Videotape Recorders; *Videotape Recordings

ABSTRACT

Important changes in classroom television and the technologies that accompany it have taken place. Videocassette recorders have become more plentiful, giving teachers greater flexibility in presentation and scheduling; the growth of program delivery systems such as videocassettes, satellite, cable, and broadcast services has given educators more sources for programming; and newer technologies such as interactive videodiscs have begun to enter the nation's classrooms. Between February and June 1991, almost 6,000 educators throughout the United States completed questionnaires regarding the availability, use, and support of school television. This report summarizes the results of the study, providing key measures of the use of instructional television and video, availability of equipment and programming, and support and resources devoted to instructional television. The report also summarizes teachers' attitudes toward the use of television in the classroom, notes the growth of several new television-based technologies, and suggests what trends will develop during the next few years. The information is intended to assist professionals in education, broadcasting, and government to make more effective use of classroom television and related teaching resources, and ultimately to help improve teaching and learning. An appendix provides a summary of the study design and methodology. (Author/SWC)

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ED 402 919

Summary Report

Study of School Uses of Television and Video

1990-1991 School Year

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BROADCASTING

Preface

This report summarizes the results of the 1991 Study of School Uses of Television and Video. This study is the third in a series of comprehensive national surveys of the use of television as a teaching resource in America's classrooms sponsored by the Corporation for Public Broadcasting (CPB).

The first School TV Utilization Study, co-sponsored with the National Center for Education Statistics, was conducted during the 1976-77 school year and provided widely-accepted national data regarding the educational use of television. It was followed by the 1982-83 School Utilization Study, which tracked the role of instructional television as new technologies emerged (such as videocassette recorders, or VCRs), and expanded the information available for effective planning, implementation, and evaluation of policies and programs to further the effectiveness of instructional technologies and educational achievement.

The nine years since the completion of the 1982-83 study have seen important changes in classroom television and the technologies that accompany it. VCRs have become far more plentiful, giving teachers greater flexibility in presentation and scheduling; the growth of program delivery systems such as videocassettes, satellite, cable, and broadcast services has given educators more sources for programming; and newer technologies such as interactive videodiscs have begun to enter the nation's classrooms.

CPB has sponsored the present study to provide current data that reflect the impact of these important developments, to expand and update the existing base of information, and to document almost a decade's worth of on-going experience in the use of classroom television by literally millions of educators.

There are a great many people whose hard work and important contributions are reflected in the successful conduct of this study. Unfortunately, space limitations in this summary report preclude my acknowledging them individually, but I extend my sincere gratitude to my colleagues here at the Corporation for Public Broadcasting; to Dr. T.R. Curtin and his associates at the Research Triangle Institute of North Carolina, who were responsible for the survey operations; and to all the other committed people who have contributed their efforts and skills to this study.

I am also indebted to my colleagues at the nine national education and broadcasting organizations that have endorsed this study:

American Association of School Administrators

American Federation of Teachers

Association for Educational Communications and Technology

Council of Chief State School Officers

National Association of Elementary School Principals

National Association of Secondary School Principals

National Education Association

National PTA, and

Public Broadcasting Service

Finally, I am particularly grateful to the thousands of teachers, principals, and superintendents who agreed to participate in this study, and who took the time to respond to our questionnaires despite their demanding schedules. Without their generous assistance and cooperation, the success of this study would not have been possible.

Andrew L. Russell
Project Director
Corporation for Public Broadcasting

Introduction

Between February and June 1991, almost 6,000 educators throughout the United States completed detailed questionnaires regarding the availability, use, and support of school television. Their responses are the basis for the 1991 Study of School Uses of Television and Video, a comprehensive national study sponsored by the Corporation for Public Broadcasting (CPB).

The study's results can be generalized to virtually all of the nation's public education system: 11, 218 school districts, 72,291 public elementary and secondary schools, and 2,282,773 school teachers.* In the interests of making the results of this important study available to a general audience, CPB has prepared this Summary Report of its key findings.

Instructional television and video (ITV/V) is defined broadly in this study to include all school uses of any kind of television and video programming and equipment for educational purposes.

The Summary Report provides key measures of the use of instructional television and video, of the availability of equipment and programming, and of the support and resources devoted to instructional television. The report also summarizes teachers' attitudes toward the use of television in the classroom, notes the growth of several new television-based technologies, and suggests what trends will develop during the next few years.

It is CPB's hope that this information will assist professionals in education, broadcasting, and government to make more effective use of classroom television and related teaching resources, and ultimately will help improve teaching and learning in our nation's schools.

*The study excluded districts with less than 300 students and special education, military and other special schools. For actual number of respondents, see the appendix on page 13.

Among the study's most striking results are the overwhelmingly positive perceptions that teachers hold regarding the use of television and video in the classroom. A large majority reported that television helps them perform more effectively and more creatively, and even more agreed that it can have a positive impact on education.

By almost the same margins, teachers emphatically rejected negative perceptions. Fewer than one in twenty-five teachers agree that discipline problems increase after the use of TV, for example.

The strongly positive teacher perceptions are underscored by the highly positive classroom outcomes that teachers report they have observed in their classes as a result of the use of television and video. Slightly over half find that students learn more through television. In addition, the often-cited strength of classroom television in motivating students is emphatically affirmed by teachers; so is the medium's ability to present ideas and content clearly.

Equally telling are the almost negligible percentages of teachers who have observed some of the negative outcomes that are occasionally advanced against the use of television, for example, that it reduces student attention spans or causes an increase in discipline problems.

Such positive perceptions of instructional television among teachers are quite stable; a similar question in the 1982-83 School Utilization Study showed a virtually identical pattern of responses.

Positive perceptions of instructional television and video are even more pronounced among teachers who use it most frequently in the classroom. Frequent users (those who used instructional television at least twice in the past month) are more likely to

Figure 1

Teacher Perceptions of Instructional Television and Video

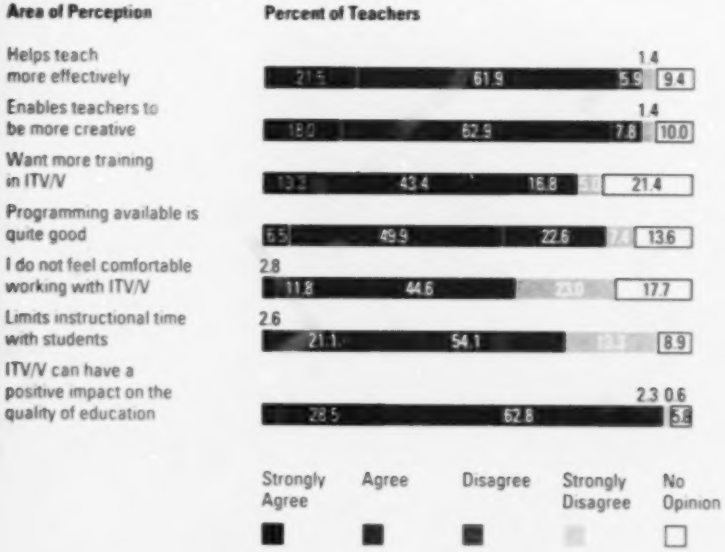

Figure 2

Student Outcomes Attributed to Instructional Television and Video

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agree that television and video enable them to teach more creatively and more effectively.

Frequent users also report a higher incidence of positive classroom outcomes from the use of television and video than their colleagues. For example, frequent users are more likely to report that students are more enthusiastic about school when instructional television and video are used, and 25% more of the frequent users report that TV and video increase student motivation. More than eight out of ten of these frequent users believe TV and video generate new interest.

Two significant differences between frequent users and all teachers do stand out, however. Frequent users are significantly more likely to have been trained in the use of instructional television. They are also significantly more likely to have access to a VCR.

These important differences illuminate some of the other findings reported in this study. The number of VCRs, for example, has increased rather dramatically since the 1982-83 study (pages 6-7). On the other hand, the opportunities for teachers to receive training has actually declined (pages 8-9).

Teachers who work with special student populations also have positive perceptions of the effectiveness of television and video as a teaching tool. Together, they rate it a versatile tool, working well with such diverse student populations as learning disabled, gifted and talented students, and economically disadvantaged students.

Figure 3

Other Student Outcomes Attributed to Instructional Television and Video

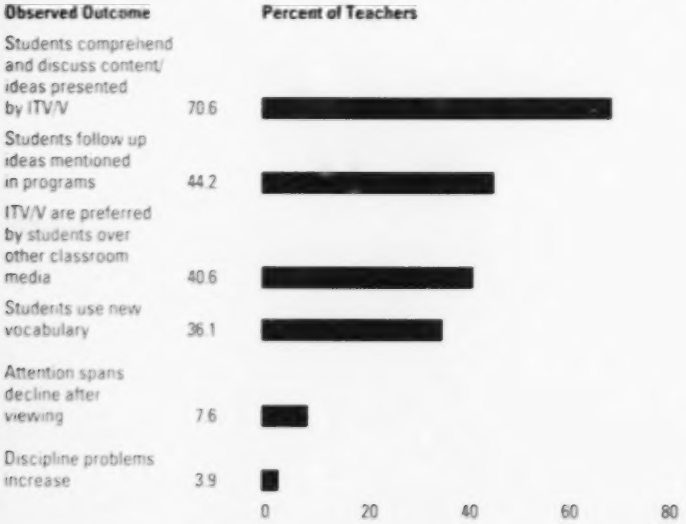
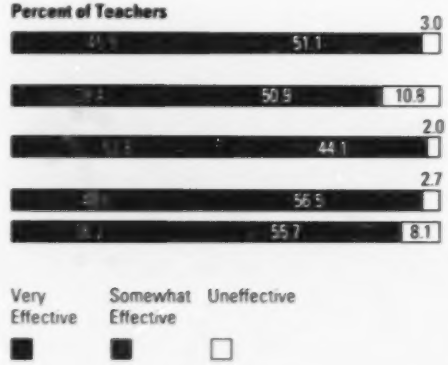


Figure 4

Effectiveness with Special Student Populations



Sources

Fig. 1—
Teacher Questionnaire item 33 (Note: Analysis restricted to teachers with access to ITV/V.)

Fig. 2—
Teacher Questionnaire items 31 and 23B. (Note: Multiple responses by teachers were possible. Analysis restricted to teachers with access to ITV/V. Frequent users were defined as those who used ITV/V at least twice in the past month.)

Fig. 3—
Teacher Questionnaire item 31 (Note: Multiple responses by teachers were possible. Analysis restricted to teachers with access to ITV/V.)

Fig. 4—
Teachers Questionnaire item 40 (Note: Analysis restricted to teachers reporting experience/knowledge with the special student populations.)

This study shows instructional television and video to be almost universally available in the nation's classrooms, a significant change from 1982-83, when television was available to just 70% of teachers. In 1976-77, television was also available to 70% of teachers, suggesting that this expansion of availability has not proceeded in a straight line, but has significantly accelerated in the last decade.

Use of television has increased correspondingly, with the number of teachers who used television in 1990-91 growing by almost 50% since 1982-83 to nearly 1.8 million teachers. Looking only at the schools where television is available for teachers' use, 82% of teachers had used television and video at least once in the previous year, and 54%, or 1.2 million teachers, had used it within the last month.

The widespread availability and increased use of television for instruction has raised the number of students exposed to TV and video as part of their curriculum. A very conservative estimate is that almost 24 million students received some part of their instruction through TV and video in the 1990-91 school year, a significant increase over the 18.5 million students estimated using ITV in 1982- 83.

If the future can be predicted from the past, use will continue to increase in the coming years. Almost one-third of teachers for whom television is available report an increase in use over the past three years, and over three-quarters reported their use was stable or increasing — percentages that are basically unchanged from the 1982-83 study.

Also essentially unchanged since the last study are the subjects for which

Figure 5

Availability and Use of Instructional Television and Video

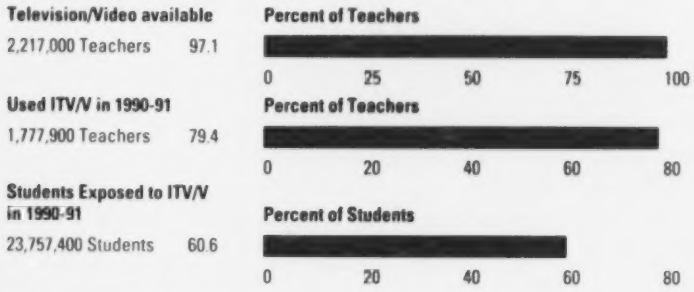


Figure 6

Trends in Teachers' Use Over the Past Three Years

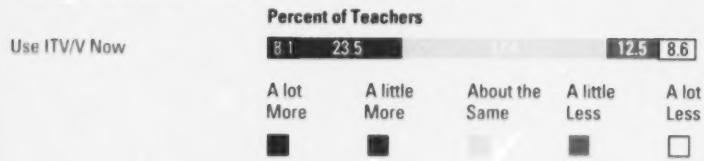
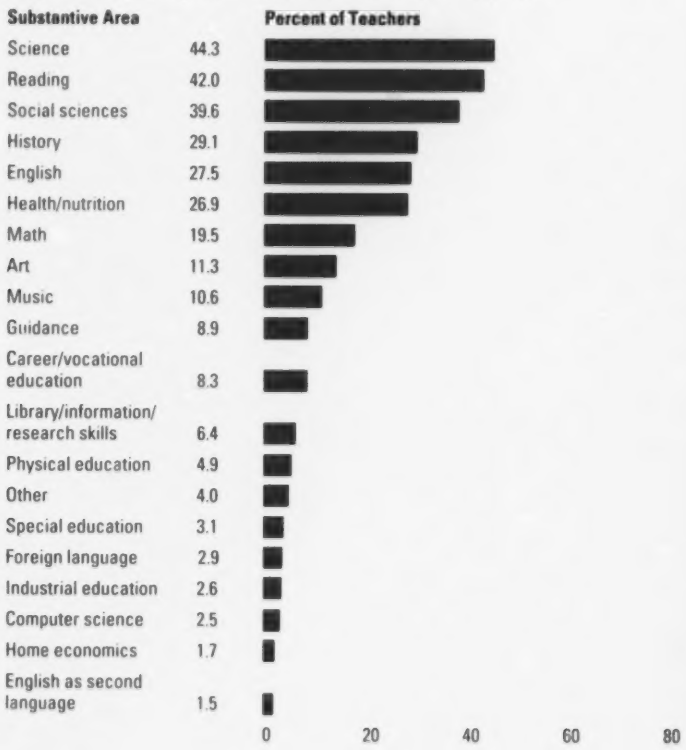


Figure 7

Subject Use of Instructional Television and Video in 1990-1991



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television is most used in the classroom. While the exact percentages show some fluctuation, the preponderance of use remains in three subjects: reading and English, science, and the social sciences.

While the subjects may have remained the same, the way teachers integrate television into their teaching seems to have changed. In the aggregate, teachers in 1991 were spending more time discussing television lessons, both before and after their class viewed programs, than they were in 1982-83.

Typically teachers spend 20 minutes preparing their classes before viewing a program, and most follow with 15 to 20 minutes or more of discussion after its conclusion. The range of activities used in conjunction with television and video further demonstrates that teachers are using television as a springboard for classroom activities and discussion.

To help teachers with these activities, most instructional television programs (and virtually all from public television) are accompanied by printed teacher's guides. This investment paid off in 1991, as two-thirds of teachers reported access to such guides; more than four out of five teachers who have guides use them at least some of the time, with almost a third using them regularly. The percentage of teachers using guides has increased by about one-third over 1982-83, further suggesting that teachers are in fact working harder to make television a more productive and better-integrated tool in the art of teaching.

Figure 8

Time Spent Preparing for and Following Up on Lessons Using ITV/V

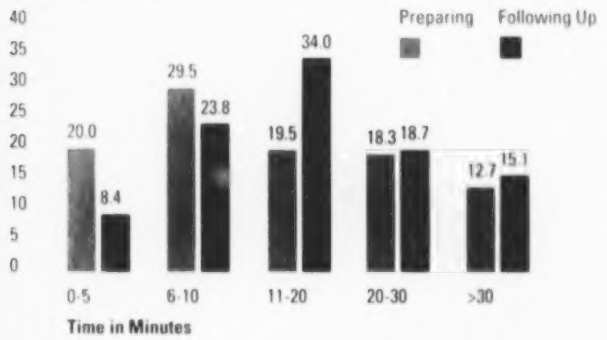


Figure 9

Classroom Activities in Conjunction with Instructional Television and Video

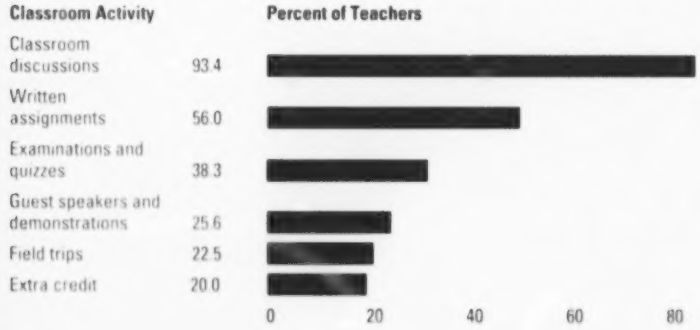


Figure 10

Access to Teachers' Guides

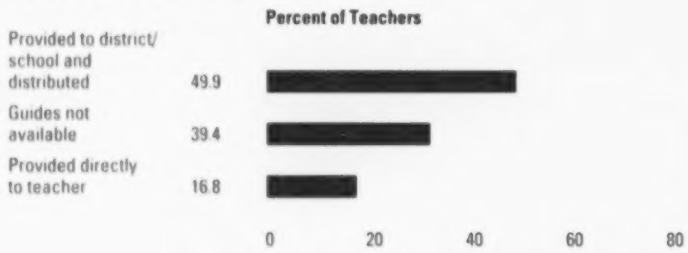
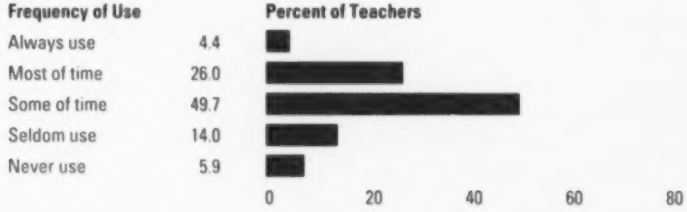


Figure 11

Use of Teachers Guides



Sources

Fig. 5—
Teacher Questionnaire item 6
Teacher Questionnaire item 16
Teacher Questionnaire item 22 and calculations

Fig. 6—
Teacher Questionnaire item 32
(Note: Analysis restricted to teachers with access to ITV/V.)

Fig. 7—
Teacher Questionnaire item 18
(Note: Multiple responses by teachers were possible. Analysis restricted to teachers with access to and using ITV/V in 1990-91.)

Fig. 8—
Teacher Questionnaire items 25 and 26

Fig. 9—
Teacher Questionnaire items 28 and 19
(Note: Multiple responses by teachers were possible. Analysis restricted to teachers with access to and using ITV/V in SY 1990-91.)

Fig. 10—
Teacher Questionnaire item 26
(Note: Multiple responses by teachers were possible. Analysis restricted to teachers with access to and using ITV/V in SY 1990-91.)

Fig.11—
Teacher Questionnaire items 26 and 27.
(Note: Analysis restricted to teachers with access to ITV/V and teachers guides and using ITV/V in SY 1990-91.)

Since the 1982-83 study, schools have been steadily increasing the number of television sets available to teachers, and dramatically increasing the number of VCRs. The number of teachers sharing a TV set has been reduced by a little over a third, while the number of teachers sharing a VCR has dropped by close to two-thirds, trends that seem to suggest that the number of VCRs is fairly rapidly approaching the number of TV sets.

The relatively rapid influx of VCRs is also reflected in the number of principals reporting videocassette libraries of all types — percentages that have risen dramatically in the last decade. The number of schools maintaining videocassette libraries has almost doubled, as has the number of state or regional videocassette libraries; the number of districts with cassette libraries has grown by 60%.

A relatively large percentage of principals are also reporting availability of new instructional video technologies such as videodisc players and interactive video systems; these types of equipment were not even included in the 1982-83 study.

As one would expect from this growth, fewer teachers are reporting difficulties with the availability of equipment compared to 1982-83. Moreover, the equipment also seems to be in better condition now than a decade ago, suggesting that schools are not only adding to their equipment but replacing older units as well. In some schools, however, both the availability and serviceability of equipment may remain a significant limitation.

The decade since the last study has also seen a dramatic growth in alternate delivery methods for instructional programming. While the availability of programming from regular broadcasts is static (for public television) or down (for commercial television),

Figure 12

Television Sets per Classroom and Videocassette Recorders per Classroom

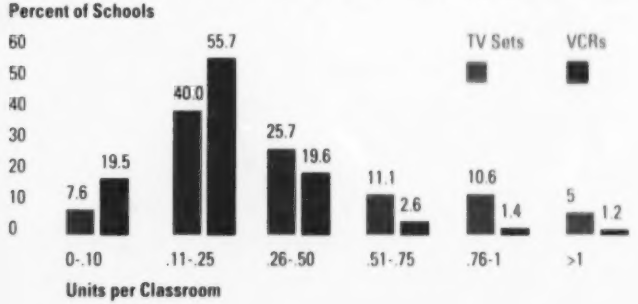


Figure 13

Percent Availability of Other Instructional Television and Video Equipment

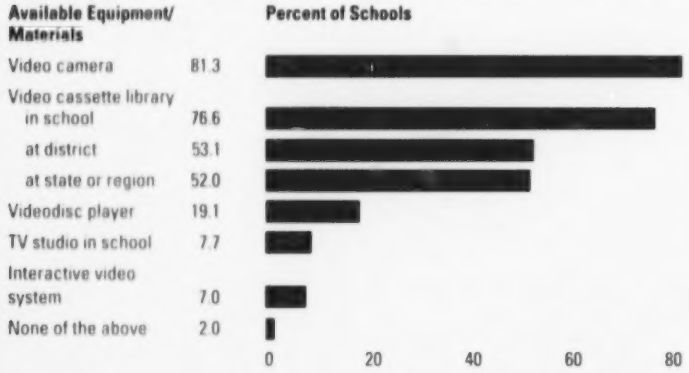


Figure 14

Difficulties with Equipment

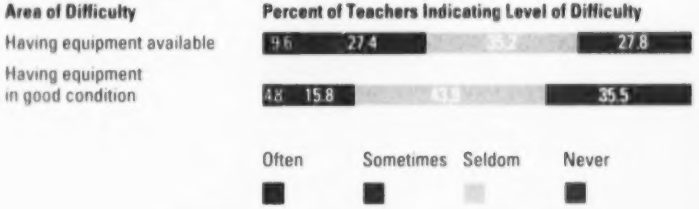
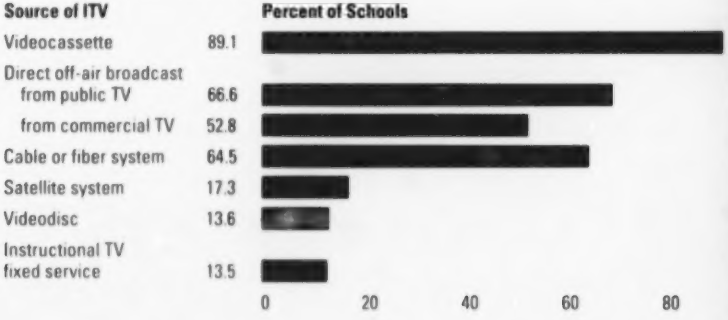


Figure 15

Sources of Instructional Television and Video



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cable is up by 65%, videodisc by almost 300%, and Instructional Television Fixed Service (a dedicated microwave television service using special equipment) by more than 300%; satellite delivery was not even measured in 1982-83.

Again, however, the major story is videocassettes, which have clearly emerged as the delivery system of choice. Availability of programming on videocassette has grown less dramatically than some of the newer technologies — a mere 60% over 1982-83 figures. But videocassettes are now available in almost nine out of ten schools, and lead the second-most cited source for programs, live broadcast via public television, by almost a third.

Advocates of instructional television have long praised the videocassette recorder for giving teachers more control over the scheduling and presentation of instructional programming. It appears from this study that their enthusiasm is well placed.

Figure 16 shows that teachers' second-most cited source for videocassettes, after the school library, is their own home (either a home-recorded cassette or one from a personal collection); third is borrowing from another teacher or a friend. In addition, teachers' preferred method of recording programs for classroom use is to simply record them at home.

These results suggest that teachers are indeed taking a more active role in selecting and obtaining programming to show their students.

Still, difficulties with programming remain. About 3 out of 5 teachers report difficulties in obtaining specific titles or getting programming when needed, which while still unacceptably high is a 10% decline from 1982-83. Teachers also have difficulty sampling programming before use, which may be a function of their typically busy schedules.

In addition, over half of teachers reported at least some difficulties in finding quality programming in their subject. However, the fact that an equal number had trouble learning about programs in advance suggests that the problem may be one of a lack of communication: teachers seem to be having difficulty learning about the resources available to them.

Figure 16

Sources of Video Cassettes

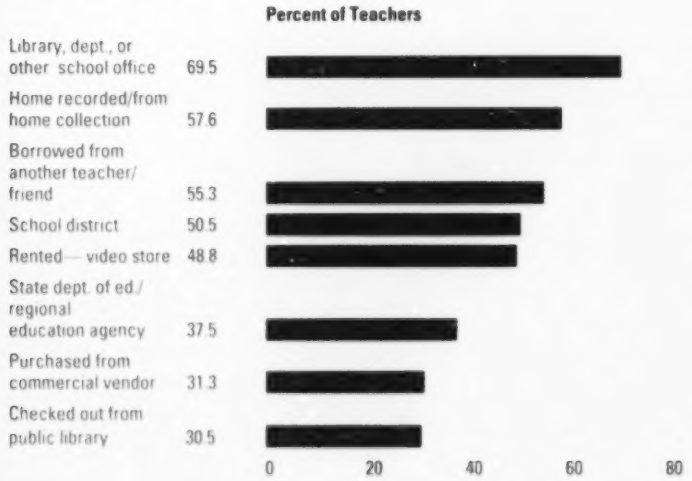


Figure 17

Means Used to Record Instructional Programming

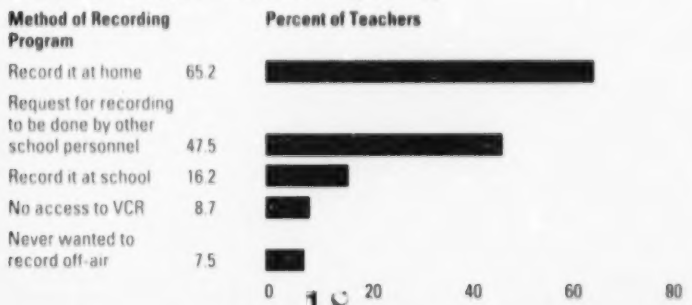
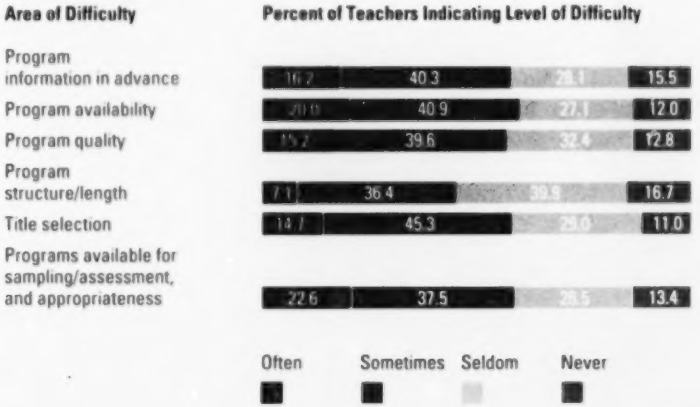


Figure 18

Difficulties with Programming


Area of Difficulty
Percent of Teachers Indicating Level of Difficulty
Program information in advance 16.2 40.3 28.1 15.5
Program availability 20.0 40.9 27.1 12.0
Program quality 15.2 39.6 32.4 12.8
Program structure/length 7.1 36.4 39.8 16.7
Title selection 14.7 45.3 29.0 11.0
Programs available for sampling/assessment, and appropriateness 22.6 37.5 26.5 13.4
Often
Sometimes
Seldom
Never

Sources

Fig. 12—
Principal Questionnaire items 10, 12, and 15

Fig. 13—
Principal Questionnaire item 14
(Note: Multiple responses by principals were possible)

Fig. 14—
Teacher Questionnaire items 17A-17H
(Note: Analysis restricted to teachers with access to and using ITV/V in SY 1990-91)

Fig. 15—
Superintendent Questionnare item 6, Principal Questionnaire item 11, Teacher Questionnaire item 9
(Note: Multiple responses by sample members were possible)

Fig. 16—
Teacher Questionnaire items 11 and 12
(Note: Multiple responses by teachers were possible)

Fig. 17—
Teacher Questionnaire item 13
(Note: Multiple responses by teachers were possible)

Fig. 18—
Teacher Questionnaire items 17A-17H
(Note: Analysis restricted to teachers with access to and using ITV/V in SY 1990-91)

Television and video receive relatively small resource investments at both the district and school levels. The median district expenditure for television was $5,000, as compared to an overall average expenditure for all instructional media of $21,000 in the 1990-91 school year.

This relatively low level of budgetary support does seem to be increasing, if slowly. Almost half of district superintendents report that financial support of television and video has increased over the last three years; in nine out of ten districts, the level of support has remained stable or increased. Further, almost a third say that support will increase over the next year as well. These percentages closely mirror responses from the 1982-83 survey, suggesting that financial support for television and video has remained essentially stable.

The sources of funds for television equipment, however, have shown some important changes. Comparison with the results from the 1982-83 study shows that the federal role in funding equipment purchases has diminished by more than two-thirds. The shortfall appears to have been largely made up by states, who have more than doubled their role in funding. The proportion of funds coming from general district revenues — by far the largest source — has remained basically unchanged.

Corporate support was not measured in the earlier study, so it is impossible to see how, or if, it has changed over the last decade. It is clear, however, that for most schools, corporations are not yet playing any significant role in support of instructional television.

Personnel resources are a second measure of support. Almost seven of ten principals report having a person in their school with responsibility for coordinating instructional television and video, representing an increase of almost 25% since 1982-83. However, virtually all coordinators

Figure 19

Trends in Financial Support for Instructional Television and Video

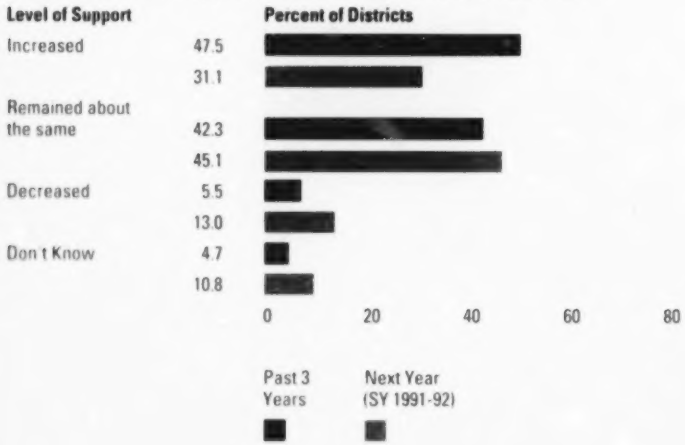


Figure 20

Sources of Instructional Television and Video Funds in 1990-91

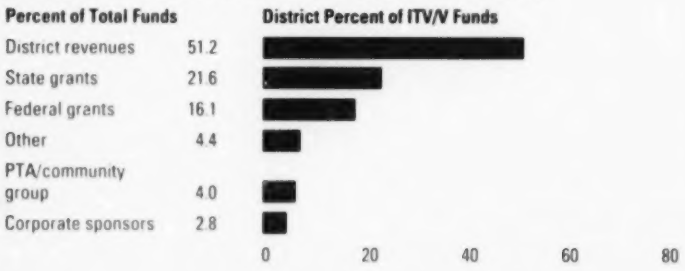


Figure 21

Availability of ITV Coordinators in Districts and Schools

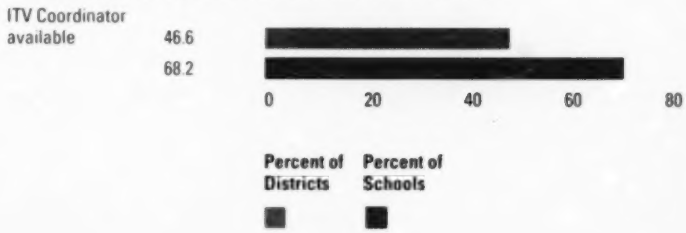
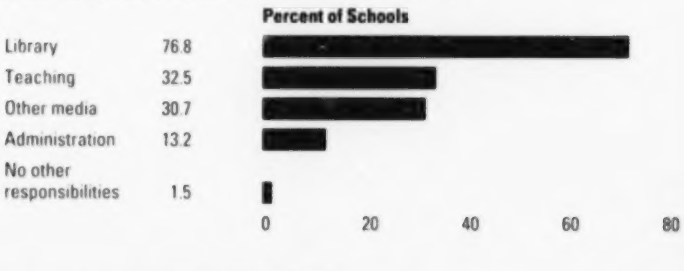


Figure 22

Other Responsibilities of ITV Coordinators in Schools



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share other responsibilities in addition to television and video. Librarians are bearing most of the load in coordinating school television and video services, with media specialists and teachers also mentioned frequently. These figures are unchanged from 1982-83 to 1990-91.

Training provided to teachers in the use of television is a third benchmark of support, and it has actually declined slightly since 1982-83. Now fewer than half of the nation's school districts have any training available at all for teachers in the use of instructional TV and video. Only one-quarter of teachers have ever had any training, a decline of almost 20% compared to 1982-83. Barely one in ten has received training within the last three years.

Moreover, the most frequently covered topics in training (asked in a separate question) involve the mechanics and procedures of using television and video: how to operate equipment, how to access and order materials, district/school policies for access and use, and copyright protection. Classroom techniques and integration in the curriculum ranked fifth on the list, followed by class preparation.

Despite the limitations on training opportunities, about half of teachers still report that their principals encourage the use of television and video to some degree. Interestingly, though, almost four out of five of these same principals perceive that their districts encourage the use of television. These figures are essentially static between 1982-83 and the present; whatever its cause, the disparity in teachers' and principals' perceptions seems to be constant.

In sum, support for instructional television and video is broadly mixed. Financial support seems to be stable, yet television is not a priority item in district or school budgets; most schools have an "ITV person," but with responsibilities for other important school functions; both district and school policies are seen as encouraging the use of television and video, yet training resources to help teachers make effective use of them are limited.

Figure 23

Availability of Training in the Use of Instructional Television and Video

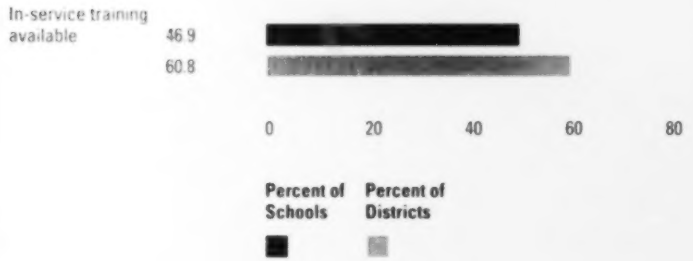


Figure 24

Extent of Instructional Television and Video Training Received

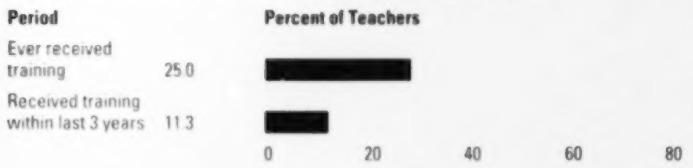
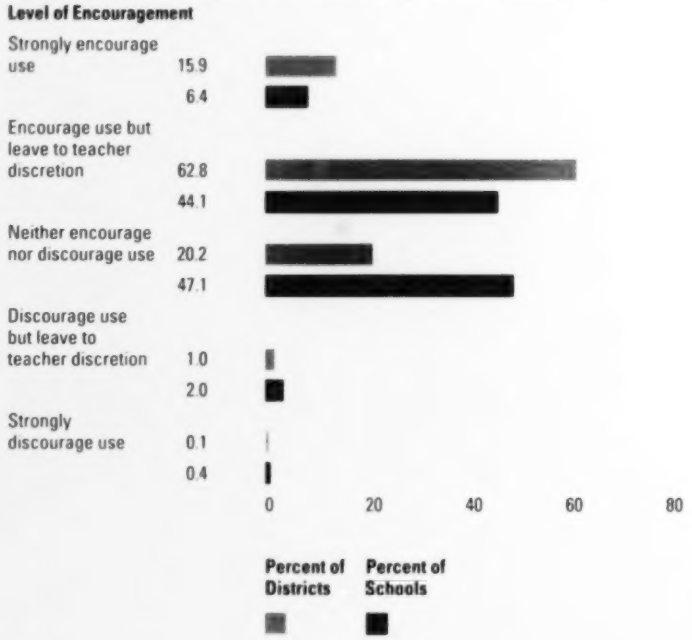


Figure 25

Encouragement of Instructional Television and Video in Districts and Schools



Sources

Fig. 19—
Superintendent Questionnaire items 22 and 23

Fig. 20—
Superintendent Questionnaire items 21 and 24A-24F (Note: Estimates are based on valid responses from 399 districts (64.3% of sample)

Fig. 21—
Superintendent Questionnaire item 30, Principal Questionnaire item 20

Fig. 22—
Principal Questionnaire item 22 (Note: Multiple responses by principals were possible. Analysis restricted to schools with ITV coordinators.)

Fig. 23—
Principal Questionnaire item 25
Superintendent Questionaire item 27

Fig. 24—
Teacher Questionnaire item 34 and 36 (Note: Analysis restricted to teachers with access to ITV/V.)

Fig. 25—
Principal Questionnaire item 24, Teacher Questionnaire item 39

Programs created and/or broadcast by public television dominate the list of teacher's most frequently used programs; three of the five most-used titles and six of the ten most-used are (or were) broadcast on public television. CNN News, bolstered by use of its Persian Gulf War coverage, was the third most used program or series, and the fourth was a Hallmark Special broadcast by CBS during data collection for the survey.

Teachers were, however, remarkably wide-ranging in their selections of programming for classroom use. Fully 1,700 different programs or series had been used within the previous month by teachers in the sample.

Taking public broadcasting as an example, one can see that teachers drew from every type of programming offered: primetime series such as Nova and The Civil War; children's programming such as Reading Rainbow, 3-2-1 Contact, and Sesame Street; and instructional series created specifically for classroom use such as Letter People, Books from Cover to Cover, and Slim Goodbody.

The growth of cable television over the last decade has had an impact on television in the classroom, as it has on television generally. More than seven in ten schools now have access to cable television, and for those schools the choices in programming have multiplied geometrically, as shown in Figure 27.

Note that while the traditional broadcast services — the Public Broadcasting Service (PBS) and the commercial networks — still enjoy the broadest availability, prominent cable services such as Cable News Network (CNN) are closing the gap, and the programming choices available to teachers will only continue to grow.

Figure 26

Leading Titles Reported by Teachers

Series/Program	Estimated Number Using: Teachers	Students
Reading Rainbow	132,600	4,186,200
National Geographic	56,400	3,220,900
CNN News	37,000	1,786,500
Sarah, Plain & Tall	36,700	1,097,500
NOVA	35,900	2,762,800
3-2-1 Contact	26,900	1,134,600
Sesame Street	25,200	748,000
News (General)	23,900	736,100
Channel 1	22,200	1,720,300
Letter People	19,500	522,300
Nature	17,800	1,003,500
The Civil War	16,100	1,613,100
Slim Goodbody	15,800	380,900
Books from Cover to Cover	14,200	421,500
Romeo and Juliet	14,100	755,600
Glory	12,400	1,140,200
Teletales	11,100	280,800
All About You	10,400	333,000
Voyage of the Mimi	10,300	453,000
Where the Red Fern Grows	10,224	468,400

Figure 27

School Access to Cable and Satellite Channels

Sources

Page 10

Fig. 26—
Teacher Questionnaire item 23B. (Note: Analysis restricted to teachers with access to and using ITV/V in the previous 30 days of the 1990-1991 school year. Fifty-two percent of teachers nationally reported using ITV/V in this timeframe.)

Fig. 27—
Principal Questionnaire items 18 and 19 (Note: Multiple responses by principals were possible. Percents for broadcast channels reflect access through cable systems only.)

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Fig. 28—
Superintendent Questionnaire item 13. (Note: Multiple responses by superintendents were possible.)

Fig. 29—
Superintendent Questionnaire item 14, Teacher Questionnaire item 20

Fig. 30—
Superintendent Questionnaire items 15 and 16 (Note: Multiple responses by superintendents were possible. Analysis restricted to districts with live televised instruction.)

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If the study results regarding support of instructional television and video (pages 8-9) paint a mixed portrait, the plans of school districts suggest a very healthy classroom teaching tool, with new technological offspring attracting considerable attention.

Particularly striking is the high percentage of districts interested in videodisc technology, a promising hybrid that combines positive aspects of videocassette players and computers to give teachers and students greater interactive control over television programming. Fully half of districts plan to acquire videodisc players, an increase of over 300% from 1982-83, and almost three-quarters plan to either begin or expand videodisc libraries.

Much the same trend can be expected in the use of live televised instruction (sometimes referred to as distance learning), which uses television technology to deliver instruction by a teacher who is physically separated from his or her classes; the archetypical example is satellite delivery of advanced courses to smaller, rural schools.

Again, the presence of live televised teaching is reported more frequently at the district level; and again, a significant percentage of districts plan to acquire or expand technologies that make it possible, such as satellite equipment and fiber optics.

But for all the projected growth at instructional television's technological frontiers, the bulk of expansion will still come at its heart: in the number of television sets and VCRs available for teachers to use, and in the videocassette libraries that provide the programming they need. Moreover, these percentages are dramatically higher than they were in 1982-83, with all three categories increasing by about two-thirds.

Figure 28

Districts Planning to Increase or Expand Instructional Television and Video Equipment or Programming Over the Next Three Years

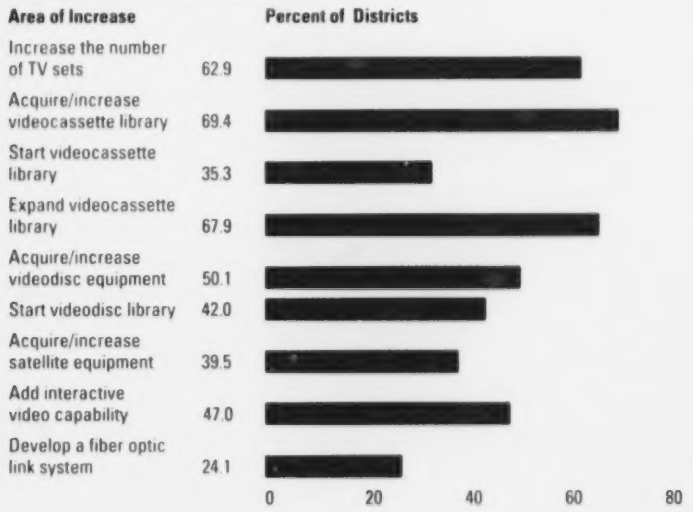

Area of Increase
Percent of Districts
Increase the number of TV sets 62.9
Acquire/increase videocassette library 69.4
Start videocassette library 35.3
Expand videocassette library 67.9
Acquire/increase videodisc equipment 50.1
Start videodisc library 42.0
Acquire/increase satellite equipment 39.5
Add interactive video capability 47.0
Develop a fiber optic link system 24.1
0 20 40 60 80

Figure 29

Availability and Capabilities of Live Televised Instruction

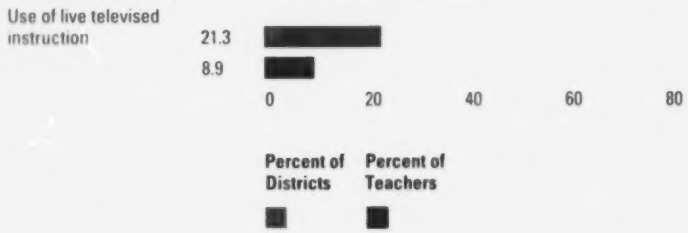
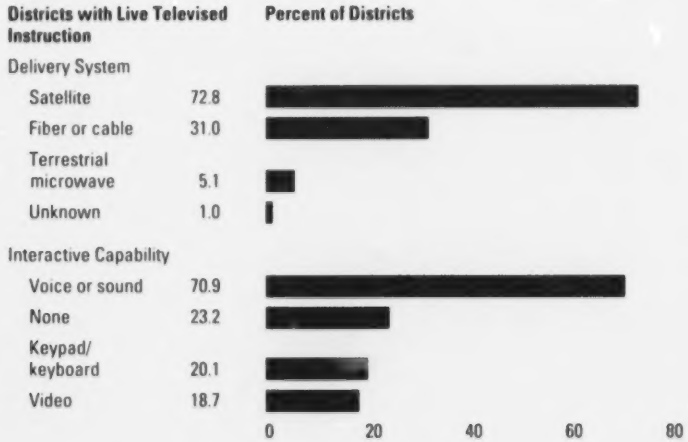


Figure 30



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Conclusion

Taken together, the results of this study show instructional television to be a firmly established teaching tool.

It is positively regarded by an overwhelming majority of classroom teachers, who are using television in ever-increasing numbers for a variety of different student populations, and integrating it more fully into their teaching.

In addition, it is increasingly well-supported with equipment and programming; and it occupies a stable, if somewhat limited, niche in school and district budgets. Furthermore, in a large majority of districts television is sufficiently well regarded to be a candidate for expansion, even in a difficult economy.

The study also suggests where improvements could be made in television and video. Program availability, for example, is one area cited by teachers as a continuing source of frustration.

Teacher training is another issue that seems to be in need of further attention, with a reported decline in availablity at a time when a majority of teachers state they would like to receive more training. Moreover, training seems to be one of the factors that influences the frequency and extent of use of television by teachers, and possibly its effectiveness with students as well.

On the whole, however, instructional television and video seem to be growing steadily in their role in America's classrooms; as teaching tools that help teachers teach more effectively and more creatively; as learning tools that motivate students and allow them to better comprehend ideas; and finally, as positive contributors to the quality of American education.

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Appendix: Summary of Study Design and Methodology

The design of the 1991 Study of School Uses of Television and Video employed a stratified random sample of classroom teachers, school principals, and district superintendents. The sampling procedure was designed to ensure to the extent possible that every public school teacher in the nation had an equal chance of being selected for participation in the study.

The sampling technique involved 1) the selection of school districts with probability proportional to size, using number of teachers as the measure of size; 2) the selection of a sample of schools within selected districts to reach the desired number of elementary, junior high, and senior high schools; and 3) the selection of a sample of two teachers in each selected school.

The survey was conducted by mail questionnaire, with separate questionnaires developed for superintendents, principals, and teachers. Data were collected during the period from February 1 through June 10, 1991, and the mailing procedure included a notification letter, an initial questionnaire mailing, at least two follow-up mailings, and telephone follow-up.

Final participation rates were:

87% of superintendents, for a total of 621 responses;

90% of principals, for a total of 1,829 responses:
- 909 elementary,
- 463 junior high,
- 457 senior high;

75% of teachers, for a total of 3,072 responses:
- 1,533 elementary,
- 748 junior high,
- 791 senior high.

Completed questionnaires were processed at a single, central location, with bar-coded identification numbers used to record receipt through an automated survey control system. Keying of the data from the questionnaires was controlled by data entry programs designed for each of the three different questionnaires; all keyed data were 100% key verified.

A sampling weight was assigned to each member in the original sample to account for unequal selection probabilities; these weights were further adjusted for nonresponse in an attempt to reduce, to the extent possible, potential bias resulting from such nonresponse. These adjusted weights were then used for estimating results for the total population of superintendents, principals, and teachers in the nation.

Despite efforts to reduce error , the estimates in this study are subject to both sampling and nonsampling error. Variability in the estimates in this report is typically no greater than two percent for the total population of superintendents, principals, and teachers. In many cases, the error is less than five-tenths of one percent.

For a more complete discussion of the design and methodology employed in the 1991 Study of School Uses of Television and Video, please refer to the Technical Report.

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